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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,932

11/14/2007

Frank Geshwind

NY-PSS 212-US2

5396

7590

12/23/2008

C. Andrew Im
FULBRIGHT & JAWORSKI
666 Fifth Avenue
New York, NY 10103

EXAMINER

EVANS, FANNIE L

ART UNIT

PAPER NUMBER

2877

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,932	Applicant(s) GESHWIND ET AL.	
	Examiner F. L. Evans	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-7,11 and 14-16 is/are allowed.
- 6) ☒ Claim(s) 2,8-10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>121207</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Information Disclosure Statement

The prior art cited in the information disclosure statement filed on December 12, 2007 has been considered.

The Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR § 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification is silent with respect to (1) the CIDB. array or camera, the CMOS array or camera and the micro-bolometer array or camera set forth in claim 2; (2) the mechanically translated 2-D mask set forth in claim 3; (3) the broadband imaging system set forth in claim 5; (4) the distinct imaging dispersion systems analyzing non-identical wavelength regions set forth in claim 6; (5) the beam-splitter or removable fold mirror placed in the optical path before the dispersion device and capable of redirecting incoming radiation and placing the image of the scene or object of interest at the focal plane of one or more additional distinct hyper-spectral imaging systems analyzing one of more non-identical wavelength regions set forth in claim 7; and the code patterns set forth in claims 12 and 13. Applicant must amend the specification to secure correspondence between the specification and the original claims, 37 CFR § 1.121(e). No new matter should be entered.

The Drawings

The drawings are objected to under 37 CFR § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, (1) the mechanically translated 2-D mask set forth in claim 3; (2) the broadband imaging system set forth in claim 5; (3) the distinct imaging dispersion systems analyzing non-identical wavelength regions set forth in claim 6; and (4) the beam-splitter or removable fold mirror placed in the optical path before the dispersion device and capable of redirecting incoming radiation and placing the image of the scene or object of interest at the focal plane of one or

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more additional distinct hyper-spectral imaging systems analyzing one of more non-identical wavelength regions set forth in claim 7 must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR § 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

The use of a period in line 2 of claim 2 after “CIDB” is objected to. Each claim begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations.

The lack of an antecedent for “the coded apertures” in line 1 of claim 8 renders the claim and any claim dependent therefrom indefinite.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the

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subject matter which the applicant regards as his invention.

Claims 2, 8-10, 12 and 13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 2, it is not clear what a “CIDB. array or camera” is. The disclosure of the invention does not define “CIDB.”

Claim 8 is indefinite in that it is not clear if “(in the spatially coherent direction)” is part of the claimed invention.

The terminology “only a not necessary contiguous subportion” in line 2 of claims 9 and 10 is not understood. Clarification/correction is required.

The terminology “to present coded in controlled to enable multiplexing in the direction of dispersion” in lines 1 and 2 of claims 12 and 13 is not understood. Clarification/correction is required.

The structure which goes to make up the hyper-spectral imaging system must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device.

Additional Prior Art

Mende et al (5,627,639) disclose an imaging spectrometer comprising a coded entrance aperture.

Allowable Subject Matter

Claims 1, 3-7, 11 and 14-16 are allowed over the prior art of record

As to independent claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a hyper-spectral imaging system comprising a spatial light modulator placed at a focal plane of the imaging foreoptics, in combination with the rest of the limitations of the claim.

Fax/Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should

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be directed to the examiner whose telephone number is (571) 272-2414.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/F. L. Evans/
Primary Examiner
Art Unit 2877**

December 19, 2008